

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000639**Date Inspected:** 16-Oct-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2130**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** 89 & 114 Meter Mock-up**Summary of Items Observed:**

This Quality Assurance (QA) Inspector observed ZPMC Magnetic Particle Testing (MT) Technician performing MT on various welds on the 89 and 114 Meter Mock-Ups in the fabrication shop. The MT Technician for ZPMC was Zhou Dong Yun. For the 114 Meter Mock-up there was one excavation 40 millimeters (mm) in length and 32 mm in depth in weld number 5 between the longitudinal stiffener plate p1012-2 and MA111-1. This excavation was located on the very end of the weld closest to the center line of plate MA111. For the 89 Meter Mock-Up MT was once again performed on the final cover passes by Mr. Zhou on Skin C Lower plate MA23-1 to mp507-1, complete joint penetration (CJP) weld 36 A & B sides and partial joint penetration weld 39 & 40. Further testing was carried out between plates MA23-1 to mp 508 on CJP weld 39 A & B side and PJP welds 37 & 38. Once again MT was performed by ZPMC for the 89 Meter Mock-Up, Skin D upper between plate's mp509-1 and mp513-1, CJP weld 21 A & B side and PJP weld 1 & 2. Another set of three repair excavations were MT Tested by ZPMC on weld joint 2 of the 114 Meter Mock-up between plates A116 and p919 on inside corner splice section. The excavations were as follows; one was located approximately 20 mm from the end of the weld and was 126 mm in length and 30 mm in depth; two was located 480 mm from the weld end and was 140 mm in length and 34 mm in depth and the last was located 830 mm from the end of the weld and was 340 mm in length and 27 mm in depth. Mr. Zhou reported finding no indications on the above test areas and QA performed MT verification testing for 100% of the repair excavation lengths and 10% of the final cover pass weld lengths and found no recordable indications. It was noted during the testing that the ZPMC MT Technician was placing the MT yoke at 45 degree angles to the direction of welding instead of the conventional zero/ninety degrees. For details see TL-6028 dated October16, 2007.

This QA inspector was requested to observe ZPMC performing ultrasonic testing (UT) on two welds on piece

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

mark MUC A119, however when weld numbers were asked for ZPMC did not have the data available. The UT Technician, E Shui Qin left while Fu Yu Hong retrieved the data. The plates and weld numbers were identified, however the UT technician never returned to carry out the testing. The welds which testing was to be performed on were number 1 between plates A119-1 and p927 and weld 2 between A119-1 and p858.

Summary of Conversations:

No significant conversation today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Berger,Bruce	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
